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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,793	11/20/2001	Kazuyasu Ohashi	R2180.0113/P113	9125

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EXAMINER

HASAN, MOHAMMED A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,793

Applicant(s)

OHASHI, KAZUYASU

Examiner

Mohammed Hasan

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 6, 29, 30, 32 - 35, 37, 39 - 42 is/are rejected.
- 7) ☒ Claim(s) 7 - 28, 31, 36, 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/20/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 2/4/02 is accepted.

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 3/25/02 have all been considered and made of record (note the attached copy of form PTO – 1449).

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 37 is rejected under 35 U.S.C. 112, second paragraph.

Regarding claim 37 is rendered indefinite by the use of term “ fourth lens bands substantially close to the fourth lens band”. It is rendered indefinite because “ a

Art Unit: 2873

fourth lens band substantially close to the image side", not mentioned in the claim. Therefore, is rendered indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 6, 29, 30, and 33 – 34, and 39 - 41 are rejected under 35 U.S.C. 102

(b) as being anticipated by Yahagi (5,694,252).

Regarding claim 1, Yahagi discloses (refer to figure 1, column 4, lines 34 - 51) a camera apparatus comprising a zoom lens having a first lens band (G1) having a positive focal length, a second lens band (G2) having a negative focal length, at least third to fifth lens bands (e.g., G3, G4 and G5) having positive focal length, and aperture (e.g., a stop 3) diaphragm located in the vicinity of the third lens band (column 4, line 39) , and where the second lens band smoothly moves towards the third lens band and fourth lens band moves from the fifth lens band side toward a long focal point end (column 4, lines 44 – 45) so as to share a magnifying function together with the second lens band, when magnification is performed from short to long focal point ends (e.g., wide angle to telephoto end, column 4, lines 33 – 35) .

Regarding claim 2, Yahagi discloses a mobile information terminal comprising a camera apparatus having a zoom lens (refer to figure 1, column 4, lines 34 –51)

Art Unit: 2873

having a first lens band (G1) having a positive focal length, a second lens band (G2) having a negative focal length, at least third to fifth lens bands having a positive focal lengths (G3, G4 and G5) , and aperture diaphragm (e.g., a stop 3) located in the vicinity of the third lens band, and where the second lens band smoothly moves towards the third lens band and fourth lens band moves from the fifth lens band side toward a long focal point end (column 4, lines 44 – 45) so as to share a magnifying function together with the second lens band, when magnification is performed from short to long focal point ends (e.g., wide angle to telephoto end, column 4, lines 33 – 35) .

Regarding claim 3, Yahagi discloses (refer to figure 1, column 4, lines 34 - 51) a zoom lens having a first lens band (G1) having a positive focal length, a second lens band (G2) having a negative focal length, at least third to fifth lens bands (e.g., G3, G4 and G5) having positive focal length, and aperture (e.g., a stop 3) diaphragm located in the vicinity of the third lens band (column 4, line 39) , and where the second lens band smoothly moves towards the third lens band and fourth lens band moves from the fifth lens band side toward a long focal point end (column 4, lines 44 – 45) so as to share a magnifying function together with the second lens band, when magnification is performed from short to long focal point ends (e.g., wide angle to telephoto end, column 4, lines 33 – 35) .

Regarding claim 4, Yahagi discloses (refer to TABLE 1 and TABLE 2) where a distance (D_{1w}) between the first and second lens band in the short focal length end arrangement distance (D_{1T}) between the first and second lens bands in the long focal point end arrangement, a distance (D_{3w}) between the third and fourth lens bands in the

Art Unit: 2873

short focal point end arrangement, a distance (D_{3T}) between the third and fourth lens bands in the long focal point end arrangement substantially meet the following inequality: $(D_{3W} - D_{3T}) / (D_{1T} - D_{1W}) > .3$.

Regarding claim 5, Yahagi discloses (refer to figure 2, column 4, lines 33 – 37) where the first lens band (e.g., a first lens group) faces an object to be photographed.

Regarding claim 6, Yahagi discloses (refer to figure 2) where a fourth lens bands (G4) comes closest to the third lens bands (G3) at a focal length slightly before the long focal point end.

Regarding claim 29, Yahagi discloses (refer to figure 1, column 4, lines 34 - 51) a method for zooming having a first lens band (G1) having a positive focal length, a second lens band (G2) having a negative focal length, at least third to fifth lens bands (e.g., G3, G4 and G5) having positive focal length, and an aperture diaphragm (e.g., a stop 3) is located in the vicinity of the third lens band (column 4, line 39), and where the second lens band smoothly moves towards the third lens band and fourth lens band moves from the fifth lens band side toward a long focal point end (column 4, lines 44 – 45) so as to share a magnifying function together with the second lens band, when magnification is performed from short to long focal point ends (e.g., wide angle to telephoto end, column 4, lines 33 – 35) .

Regarding claim 30, Yahagi discloses (column 4, lines 50 – 51) the step of bringing fourth lens band closest to the third lens band at a focal length slightly before the long focal point end in the step of substantially simultaneously moving fourth lens

Art Unit: 2873

band (e.g., as shown in figure 1, fourth lens group G4 closest to the third lens group G3).

Regarding claim 32, Yahagi discloses (column 2, lines 26 – 28) the step of fixing the first lens band when magnification is performed (e.g., movement of the lens group magnification is performed, when magnification is performed fixing the first lens group G1, G3, and G5).

Regarding claim 33, Yahagi discloses (column 2, lines 26 – 28) the step of fixing the third lens band and an aperture diaphragm when magnification is performed (e.g., movement of the lens group magnification is performed , when magnification is performed fixing the first lens group G1 , G3, and G5).

Regarding claim 34, Yahagi discloses the step of performing focusing with the fifth lens band when magnification is performed (e.g., performing focusing fifth lens band when movement of the second and fourth lens group, refer to figure 1).

Regarding claim 39, Yahagi discloses (refer to figure 1) fixing the first and third lens bands (e.g., G1 and G3 lens group) and the aperture diaphragm (e.g., a stop 3) with regard to the image surface (e.g., moving the second and fourth lens group).

Regarding claim 40, Yahagi discloses (refer to figure 1, column 4, lines 34 - 51) a camera apparatus comprising a zoom means for performing zooming, zoom means comprising first means for deflecting light, first means having a positive focal length (e.g., a first lens band (G1) having a positive focal length) , second means for deflecting light , second means having a negative focal length (e.g., a second lens band (G2) having a negative focal length) , at least third to fifth means for deflecting the lights , at

Art Unit: 2873

least third to fifth means having a positive focal length (e.g., third to fifth lens bands , G3, G4 and G5 , having positive focal length) , and means for narrowing the light in the vicinity of the third means (e.g., a stop 3, narrowing the light , column 4, line 39) , and where the second means smoothly moves towards the third means and fourth means move from the fifth means toward a long focal end (column 4, lines 44 – 45) so as to share a magnifying function together with the second means when magnification is performed from short to long focal point ends (e.g., wide angle to telephoto end, column 4, lines 33 – 35) .

Regarding claim 41, Yahagi discloses (refer to figure 1) where the fifth means perform focusing during zooming (e.g., column 2, line 36).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahgi (5,694,252).

Art Unit: 2873

Regarding claims 35, as applied to claim 29, Yahagi discloses, a photographed image (e.g., # 1 is a image plate, refer to figure 1) except digital information. However, Yahagi discloses a video camera having a zoom lens system (column 1, lines 16 – 25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a computer program in to the Yahagi zooming system for the purpose of digital image information as taught by Yahagi (column 1, lines 16 – 18)

Regarding claims 42, Yahagi discloses (refer to figure 1, column4, lines 34 – 51) a zooming operation in a camera apparatus including a first lens band (G1) having a positive focal length, a second lens band (G2) having a negative focal length, at least third to fifth lens band (G3.G4, and G5) having a positive focal length and aperture diaphragm (e.g., a stop 3, column 4, line 39) located in the vicinity of the third lens band, and where the zooming operation having the steps of moving the second lens toward the third lens band, substantially moving fourth lens band from the fifth lens band toward a long focal point end so as to share a magnifying function together with the second lens band when magnification is performed from short to long focal point ends. Yahagi discloses all of the claimed limitations except a computer program product, which stores computer program instruction when executed by a computer result in a zooming operation. It would have been obvious to one of ordinary skill in the art at the time invention was made to provide a computer program in to the Yahagi zoom lens system for the purpose of imaging size of zoom lenses for video camera as taught by Yahagi (column 1, lines 16 – 25).

Allowable Subject Matter

7. Claims 7 – 28, 31, 36 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach where a variance of an image surface caused by the smooth movements of second and fourth lens band is compensated by movement of the fifth lens band in a predetermined direction, where the lens band is immobile, and the long and short focal length meet the condition

$$-1.4 < (f_{12T} / f_1) < -1.0; \text{ and } .4 < (f_{12T} / f_{12W}) / (f_T / f_W) < .7 .$$

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art: Yahagi (5,548,445), Tochigi (5,537,255), and Aoki et al (5,610,766), all of the reference discloses zoom lens system with the second and fourth lens moving.

Conclusion

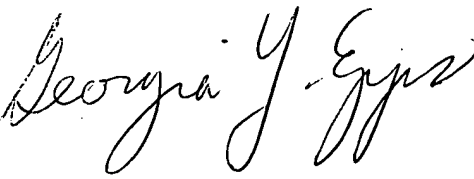
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (703) 306-0089. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

Art Unit: 2873

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MH
September 24, 2002


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800